

# HP-16c Cheat Sheet

<https://github.com/gvnn3/hp16cheat>

## Key to Symbols

*DS* Drops stack.  
*LS* Lifts stack.  
*SU* Stack unchanged.

## Clearnig

*BSP* Backspace.  
*CLx* Clear X.  
*CLEAR PRGM* Clear program memory.  
*CLEAR REG* Clears all registers.  
*CLEAR PREFIX* Clear any prefix entry.

## Data Entry

*ENTER* Copy X into Y.  
*CHS* Change sign.  
*EEEX* Enter Exponent (Floating point mode).

## Stack Manipulation

*X<>Y* Exchange X and Y  
*RVRA* Roll Stack Down/Up

## Display Control

*HEX/DEC/OCT/BIN* Change number base.  
*SHOW HEX/DEC/OCT/BIN* Show X in another base.  
*SET COMPL 1s, 2s, UNSGN* Set complement mode.  
*WSIZE* Set word size 1..64 (use 0 for 64).  
*WINDOW* 0..7 Display eight digit segm of X  
*< >* Scroll left or right.  
*SF/CF N* Set/Clear flag [0..5].  
*STATUS* Show compl, wordsize and flags.  
*FLOAT N* Choose decimals with 0..9

## Math

*+, -, ×, ÷*  $X \leftarrow Y \text{ OP } X$ , *DS*  
*RMD*  $X \leftarrow Y \text{ MOD } X$ , *DS*  
 $\sqrt{x}$  Square root of X, *SU*  
 $1/\text{ }x$  Reciprocal of X, *SU*  
*DBL×, DBL÷, DBLR* Math with doubles  
*ABS* Absolute value of X.

## Bit Operations

*SL/SR* Shift left/right *0*  
*ASR* Arithmetic shift right *SGN*  
*RL/RR* Rotate left/right preserving bits.  
*RLC/RRC* Rotate through carry bit.  
*RLn/Rn/RLCn/RRCn* Rotate Y, X bits *DS*.  
*LR* Left justify X into Y, leaving bit count in X.  
*MASKL/MASKR* Create left of right bit mask based on X.  
*. SB/CB* Set/clear bit in Y based on X.  
*#B*  $X \leftarrow \text{sum bits in X}$  *SU*.  
*NOT|OR|AND|XOR*  $X \leftarrow X \text{ OP } Y$ . *DS*.

## Memory

*ST0* Store value in X into reg 0..F, I, (i).  
*RCL* Recall value from 0..F, I, (i) into X.*LS*  
*X<>I* Exchange X and index register.  
*X<>(i)* Exchange X and register indexed by I.  
*LSTx* Recall previous X into X.  
*MEM* Show memory status.

## Programming

*P/R* Program or Run mode  
*R/S* Run/Stop  
*LBL* 0..F Set a program label  
*RTN* Return from subroutine or exit program.  
*PSE* Pause and show X.  
*GTO* Goto LABEL.  
*GTO .nnn* Goto line N.  
*GSB* Goto a subroutine.  
*SST* Single step forwards.  
*BST* Single step backwards.  
*F?* If flag *unset*, skip an instruction.  
*B?* If bit *unset*, skip.  
*<, ≤, ≥, >, ≠,* If *false*, skip.  
*DSZ/ISZ* Decrement/increment index, skip if 0.